Consensus Criteria

Primary eye care in India – The vision center model

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The World Health Organization (WHO) Global Action Plan (GAP) 2014-19 emphasize providing Comprehensive Eye Care (CEC) using the health system approach to achieve Universal Eye Health Coverage (UEHC). An important aspect of CEC is Primary Eye Care (PEC). The scope of PEC varies significantly with primary health workers providing PEC in most parts of the developing world, whereas in developed nations PEC is provided by specialized personnel such as optometrists. This article focuses on delivery of PEC models in India, specifically through the vision center (VC) approach. VCs are part of a larger eye care network and provide PEC in remote rural areas of the country. The authors describe the how PEC is delivered in more than 300 VCs operated by six mentor hospitals in India under the Global Sight Initiative (GSI). Key factors compared include: The role of leadership; human resource planning, including recruitment and retention; service delivery; leveraging technology for planning and reaching key populations; financial sustainability; supply chain management; and quality and monitoring. It also discusses issues to be considered to strengthen VCs as we move ahead towards our collective goal of achieving UEHC and eliminating avoidable blindness.

Key words: Blindness, primary eye care, vision center, visual impairment

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Recent global data showed that there are 36 million blind and 217 million with moderate or severe visually impairment (VI).[1] Though there is a decline in prevalence of blindness and VI, the absolute numbers of blindness and VI has increased.[1] Factors responsible included an increase in aging population as well as population growth. Global data also showed changing trends in causes of blindness and VI over time i.e., declining prevalence of conditions like trachoma and onchocerciasis, whereas there were increase in prevalence of non-communicable eye diseases (NCED) like glaucoma, diabetic retinopathy (DR), and age-related macular degeneration (ARMD).[2] As far as cataract and refractive error (RE) are concerned, there is also a small increase in absolute numbers.[2]

The goal of the World Health Organization (WHO) Global Action Plan (GAP) 2014-19 is to reduce the prevalence of VI by 25% by 2020 (baseline being 2010 data).[3] It emphasized that a vertically running, stand-alone programs focusing on a specific disease rather than addressing the person as a whole cannot be effective any longer to respond to these conditions. The solution is to provide Comprehensive Eye Care (CEC) using the health system approach.[4] The GAP emphasizes strengthening Primary Eye Care (PEC) as an approach to achieve Universal Eye Health Coverage (UEHC).[3] WHO defines UEHC as "ensuring that all people have access to needed promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that people do not suffer financial hardship when paying for this services.[3]" This implies that all people should have access to the best quality of health care without the risk of impoverishment. This also implies that UEHC should be comprehensive, equitable, of high quality, accessible, and affordable to all without any financial hardship. It also highlights the integration of PEC to address primary health care using the health system approach.[3] The inclusion of universal health care in the third Sustainable Development Goal in 2015 further cemented this commitment.[5]

Several reports described a large variation in both the use of PEC and understanding of PEC from different regions and also between various stakeholders. A good PEC program should also ensure equity, community participation, inter-sectoral collaboration, and long-term sustainability for wider impact and healthy communities. However, the scope of PEC varies significantly throughout regions. While primary health workers who provide PEC as one of their responsibilities in most parts of Africa whereas in developed nation such

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as UK, USA, and Australia, PEC is provided by specialized personnel such as optometrist who are independent eye care service providers in these countries. In countries, such as India, in the government sector, the PEC is provided by trained para-medical ophthalmic (PMO) personnel in primary health centers who work in liaison with medical officers. In private sector/non-governmental sector, trained ophthalmic personnel provide care, most of whom are termed as vision technicians.[6]

Primary Eye Care in India

India has a disproportionate share of global blindness and VI. While efforts have been directed towards reducing the prevalence of blindness and we have achieved great success in improving the cataract surgical rates (CSR), the major dearth in reducing the prevalence of blindness is increasing given the aging population, population growth, lack of a comprehensive eye care approach, as well as weak PEC systems. In the government sector, though, there are integrated primary health care and PEC networks through primary health centers as well as community centers; however, the government system as a whole is weak in implementation.[6] To address this, a large proportion of non-government organizations have come up implementing UEHC through their PEC network of VCs. VCs in India operate in line with India's National Program for Control of Blindness (NPCB). NPCB operates specifically with the objective to "strengthen the existing and developing additional human resources and infrastructure facilities for providing high-quality Eye Care in all Districts of the country."[7] VCs are part of a larger eye care network and provides PEC in remote rural areas of the country. They are staffed by locally recruited, well-trained technicians and typically offer following core services: refraction and dispensing of spectacles, diagnosis of common eye conditions, and referral of cases needing further intervention to a hospital. However, there are some variations in the understanding of the concept as well as delivery of care.

This article describes the way PEC is delivered in the VCs operated by the six mentor hospitals under Global Sight Initiative (GSI).[8] GSI is an international network of hospitals and International INGOs working towards collective goal of restoring sight to an additional one million patients each year by 2020. In India, Seva Foundation along with six mentor hospitals/institutes and 50+ hospitals form the GSI network. The mentor hospitals/institutes include Aravind Eye Care System (AECS), Dr Shroff's Charity Eye Hospital (SCEH), H V Desai Eye Hospital (HVD), LV Prasad Eye Institute (LVPEI), Sadguru Netra Chikitsalaya (SNC), and Vivekananda Mission Asram Netra Niramay Niketan (NNN). Annually, these hospitals/institutes operate on 500,000 to 600,000 cataract surgeries and if we include the output of their all mentee hospitals, the output is approximately 1 million cataract surgeries. As of March 2018, this group of hospitals/institutes have 321 VCs with an annual output of more than 1.3 million outpatients seen. Although these hospitals/institutes are committed to primary eye care, how they have implemented these VCs varies. This article describes the variation in implementation of the components of health systems, mainly leadership roles in establishing criteria for setting up a VC; human resource planning, including recruitment and retention; service delivery, including output; leveraging technology for planning and reaching key populations; financial sustainability and points to consider to improve sustainability; supply chain management; and quality and monitoring. It also discusses approaches to be taken as we move ahead towards our goals of achieving UEHC and eliminating avoidable blindness. Step wise methodology included was filling a predesigned questionnaire to collect information related to the above factors followed by presentation in one of the National VISION 2020 symposium along with post-meeting follow up questionnaires.

Defining Vision Centers (VCs)

While defining VC, all these 6 hospitals/institutes had consensus that it is a permanent eye care facility in the community which acts as the first point of interface with the population by offering eye care services provided by a skilled eye care worker employed exclusively for the VC.[9] VCs provide easily accessible eye care services and a way for patients with chronic blinding eye conditions to readily monitor their eye health status. Centers are compact with usually two or three rooms and staffing that ranges from one to three staff. General consensus was that the target population is around 50,000 patients. However, some of the hospitals/institutes felt that there are people accessing their VCs even beyond their coverage area and felt that target population should not be a fixed number but should include the population of all villages that can easily access these VCs within a time frame. As far as distance from base hospital is concerned, most felt that it should be within 50 km radius of the base hospital, however, in real life situation, many of their VCs it goes beyond this fixed distance, again depending on the ease of accessing the base hospital. In terms of numbers attached to the base hospital, it ranged from as low as 2 to as high as 39; however, the average was approximately 10.

Below Table 1 shows the number of VCs established as of March 2018 under these 6 mentor institutes as well as their performance during the year April 2017–March 2018.

Benefits of Incorporating Primary Eye Care VCs into Eye Care Service Delivery

When asked, about the benefit of incorporating VCs into eye care services, the following were highlighted.

- **Service on the spot.** VCs serve as the first level of response and care for patients. By responding to primary eye care needs at the VCs, the referral hospital can focus on cases that are more serious and which cannot be treated with a simple intervention
- **Linking to sight.** VCs not only provide PEC, but they also reduce the prevalence of blindness. VCs identify patients who need cataract surgery and other sight saving services. Staff from VC organize the patients' referrals to the hospital, reaching out to family members in the community, arranging transportation to the hospital, and systematically removing the barriers that kept the patient from receiving surgery. The combined effort of both the VCs and the base or referral hospital reduces the load of visual disability in the community
- **Reducing barriers and cost:** A number of studies have examined barriers within the primary stages of eye care delivery, particularly related to the uptake of services.[10-17] Major barriers cited in these studies include economic

Table 1: Summary of VCs numbers and output indicators for year 2017-2018

	Aravind Eye Care System	Dr. Shroff's Charity Eye Hospital	HV Desai Eye Hospital	LV Prasad Eye Institute	Sadguru Netra Chikitsalaya	Vivekananda Mission Asram Netra Niramay Niketan
Date VC first Established	2004	2009	2002	1992	2003	2003
No. of VCs as of March 2018	67	23	6	171	40	16
No. of VCs planned for 2020	120-130	42	15	200	100	50
Total patients seen in year	586,418	89,747	29,226	343,218	230,004	51,283
Total spectacles prescribed	86,205	16,072	4,968	101,447	72,186	8,430
Total spectacles dispensed	76,460	9,934	3,507	66,295	66,623	5,315,
Total referred to higher centers	69,154	10,334	2,338	48,042	20,783	2,832
Total attended higher centers	46,726	8,230	1,169	21,619	14,756	666

barriers[10,17] no felt need or desire,[10,13] no one to accompany or issue with transportation,[15,16] fear of surgery,[17] and lack of awareness.[15] One of the objective of these VC is to create awareness as well as reduce these barriers as well as reduce cost and make services affordable

- **Improving health seeking behaviour.** Before VCs, people in need would either wait for a visiting eye screening camp to come to their community or some would eventually get themselves to a distant eye hospital, often waiting until it was too late to restore sight. With local primary eye care VCs, individuals are now able to seek care before permanent damage is done or unnecessary years of blindness are endured. In addition, patients can conveniently complete follow-up post-operative examinations which are so vital to assuring good visual outcomes for patients who had cataract surgery. The growing number of people with blinding chronic conditions are easily monitored without over-taxing the scarce services of the referral hospital which are needed for more critical surgeries and care
- **Gender equity.** VCs serve a higher proportion of women as compared to eye hospitals. Women can more easily leave their other responsibilities to access care when it is nearby. Having a trained eye care professional who is known within the community also helps to break down other cultural barriers to accessing care, especially having a female vision technician is likely to improve uptake of services by female patients. With the addition of VCs, more women will be able to access the services that they need
- **Benefitting the whole community.** Establishing VCs in remote areas also expands job opportunities for community members, especially women and strengthens economic growth. Referral hospitals employ one to three staff from the local community to run the VC. Vision technicians who demonstrate a commitment to their work have additional career development opportunities within the VC system or at the base hospital. Small shops spring up around the VCs to cater to the needs of the patients. With VC around, there is less dependency on outreach programs to transport patients, better compliance, and follow up care. Apart from this, with VC being there, regular school screening program could also be conducted
- **Community engagement.** As primary eye care VCs are locally based and have important links to the community, there is scope for involving community members in health promotion, announcement of special services, and increased collaboration with other healthcare providers.

Factors to Consider when Establishing a VC

The location of the VC remains a critical success factor for the VC. Other factors to consider include:

- Size of the surrounding population
- Accessibility of the location
- Ability of the referral hospital to support the VC
- Closing the referral and treatment loop (easy access to prescribed medications and glasses)
- Community Participation
- Other eye care services available in the vicinity.

All the 6 hospitals/institutes find that a VC should be based on need for eye care services in a given region as well as accessibility. Community ownership further helps. However, how each one defined need differed. For example, AECS plans for a VC in a location that has a base population of about 10,000 with a community size of at least 50,000 in the surrounding area (defined as 7–10 km radius). It also ensures that the base hospital attached to each group of VCs has the required number of doctors to provide tele-ophthalmology consults to all the patients from these VCs. One ophthalmologist is planned for every 100–120 tele-consultations. SCEH looks for a larger city with a population of 50,000 to 100,000; however, they also have rural VC for 25,000–50,000 population. Other hospitals, such as LVPEI, prioritize whether or not there is any existing eye care as a key determinant to establish the VC. It also ensures that 25% of its VCs are in remote tribal location. The six hospital/institute systems surveyed planned for VCs to be an average of 400 square feet with the largest approximately 500 square feet and the smallest 200 square feet.

All hospitals/institute plan a VC around a base hospital that can act as a referral center for cases requiring more than PEC. When a VC is located further away, as within the SNC system which has VCs up to 260 km from the hospital, the hospital plans for transportation to and from the center as a key element of the operations of the VC.

The large majority of VCs operate in rented buildings. The cost for the rent is factored into the operating costs of the VC. In some cases, a donor will pay the rental fee or the community may identify a building that is donated for the purpose of the VC.

All six hospital/Institute systems equip their VCs. Every VC has essential equipment such as slit lamps, retinoscope,

trial set lenses [Table 2]. Beyond equipment to examine the eye, some VCs are able to take a patient's blood pressure and check sugar levels. This informs the fitness of the patient to undergo cataract surgery and also provides a basic primary health service to the community. If a patient is identified with high blood pressure or sugar levels, he or she is referred to a service provider.

Human Resources (Recruitment, Training, and Retention)

Identifying appropriate individuals to staff the VC remains critical. These staff act as an extension of the organization, representing the hospitals' brand in different communities. All six hospital systems recruit individuals who have a 10 plus 2 years of schooling. The majority of the hospital systems employ at least two staff at each VC: one trained in refraction and comprehensive eye examination (vision technician) and one other staff for different kind of activities—admin-related activities, to carry outreach program around VCs, to coordinate function of group of VCs, to network with community or as an optician. While few of them have the technician posted in VCs immediately after training, whereas others post them only after they have a minimum of 2 years' experience after training.

More than half of the hospitals provide an internal training program for their vision technicians and the duration of training is one year; however, the duration of post training internship differs from 3 months to a year. One hospital system,

Table 2: Key Equipment List

Equipment	AECS	HVD	LVPEI	SCEH	SNC	VMANNN
Medical Equipment						
Slit Lamp	x	x	x	x	x	x
Applanation tonometer	x		x	x		x
Trial set	x	x	x	x	x	x
Retinoscope	x		x	x	x	x
Direct Ophthalmoscope	x		x		x	x
Vision Drum	x	x	x	x	x	x
Occludor	x	x	x	x		
Near Vision Chart	x	x	x	x		x
Lensometer			x	x	x	
Autorefractor		x			x	
Near Vision Drum			x		x	
Color Vision Book	x		x	x		
Trial frame	x	x	x	x	x	x
PD Scale	x					x
Schiotz Tonometer		x			x	x
Torch	x	x	x	x	x	x
Low Vision Kit			x		x	
Edging Machine				x	x	x
BP Instruments	x	x		x	x	x
Stethoscope	x	x		x	x	x
Glucometer	x			x	x	x
Autoclave/Sterilizer	x			x	x	x
Furniture						
Registration Table	X	x	x	x	x	x
Mirror	X	x	x	x	x	x
Stool for patients	X	x	x	x	x	x
Stool/chair for OA/VT	X	x	x	x	x	x
Optical Display Racks	X	x	x	x		x
Information technology and biomedical						
Computer and Monitor or Laptop	x	x	x	x	x	x
Tablet			x			
Inverter/UPS	x		x	x	x	x
Web Camera	x		x	x		x
Printer	x		x	x	x	x
Generator	x					
Spectacle CR cutting machine						x

HV Desai Eye Hospital, staffs its VCs with trained optometrists. Others provide training ranging from 1 year to 3 years, plus provide on-the-job training for new technicians. Some of the vision technician training programs offer certification through an accredited university. For example, vision technician course of most of these hospitals is accredited to National Skill Development Council of India. Training and accreditation are currently something that the Government of India is reviewing for allied personnel, including eye care delivery.

Five of the six hospitals recruit individuals from the surrounding community where the VC will be located. Turnover rates vary from 5% to 20% and adequately staffing VCs is a concern as hospitals look to scale the number of VCs they operate. Human resources, specifically retention of staff, was cited as one of the biggest hurdles hospitals face when operating VCs. Attrition is related to multiple reasons, major being better opportunity elsewhere, for higher studies or due to family commitment like marriage etc. To address issues of retention, VMANNN and AECS hire and place female staff who are already established in the community and unlikely to move away from the community once their training is completed. Other strategies to improve retention include offering continuing professional development opportunities, promotions and a career path for motivated technicians, including the management of other VCs in the system.

Service Delivery

The majority of VCs operate 6 days per week. One hospital system, HV Desai, operates four of its six VCs an average of 3 days per week. All the VCs attached to these hospitals carry out three basic functions—*Recognize* eye conditions, *Refract* for refractive error and provision of spectacles, and *Refer* a patient to the referral hospital and do network in the community. Beyond this, some of these organizations have tele-ophthalmology consultations; have capacity to also prescribe medication (via tele-ophthalmology), provide low vision and rehabilitation services and to provide screening in schools. The average output varies a lot across these VCs, ranging from five-100 per day, with average being ten-15 per day. On an average 25%–30% are spectacle advised and 25%–30% are referred to higher level. However, there were issues related to uptake of referral services—ranging from 20% to 80%. All the hospitals use different tracking mechanisms for improving uptake of referral services, mainly being telephonic calls and tracking of Medical records. In terms of spectacle delivery, majority were able to deliver the spectacle within week duration.

Leveraging Technology

All six eye care systems have used technology to varying degrees within their VCs. Every hospital system has an electronic management system to be used within their VCs; the majority implement electronic medical records within their VCs, each system customized to the needs of their clinic and the majority of these link to the hospitals' system. Technology plays a critical role in follow up as well. At least one hospital system has connected its EMR to be able to send reminder SMS messages to patients who need to come in for follow up. With the increase in diabetic retinopathy and other eye care diseases that require recurring follow up, this use of technology plays a critical role in improving compliance.

Three hospital systems currently use or are exploring tele-ophthalmology at their VCs. AECS and LVPEI have the most advanced utilization of this type of consultation with an ophthalmologist, providing this consultation for all patients in the case of AECS and for those who require it in LVPEI VCs. The benefit of this type of consultation is that essential eye medication can be provided at the VC with the doctor's prescription following the exam. Another hospital has explored providing critical recurring medications through its VCs as a way to address barriers that patients face in traveling to the hospital to collect medication for glaucoma, for example. Some of them also use WhatsApp for providing consultation. The use of technology to improve the quality and types of services available at the VC provide benefits for the entire hospital system. With all patients receiving a virtual consultation with an ophthalmologist in the AECS model, only 11% of the VC patients were referred to base hospital for further investigations.

Another strategy that hospitals use to introduce technology into their VC systems is through mapping software. By mapping critical patient statistics, such as village, VCs are able to better target their outreach and awareness raising activities. For example, if few patients are coming from a nearby village, the VC can organize a screening activity to encourage individuals from that community to come for eye care.

Financial Sustainability of Operating a VC

For the purposes of this paper, financial sustainability of a VC is defined as the expenses to operate the VC equaling or less than the amount of revenue generated from the VC. Expenses include rental of the facility, salaries, consumables, and utilities. Sources of revenue include consulting fees, spectacles, medicine and blood sugar examination, and surgery referrals. All six eye care systems also receive donations, but these were not factored into the sustainability of operating a VC. Of the 274 VCs considered (those open less than one year were not considered), 40% of VCs recover more than 100% of their operating expenses and 30% recover 75%–99% of their operating expenses. All six eye care systems had at least some VCs recovering more than 100% of their operating expenses. A total of 19% recover 50%–75% of their operating expenses and 12% recover less than 50% of their operating expenses. On average, it takes a VC 2–3 years to become financially sustainable.

Success factors to achieve financial sustainability include consistent number of walk-in patients at the VC (15–20 patients seen per day) and steady purchases of spectacles. Some of these VC also have user fees. Other factors influencing the success of the VC included good retention of staff, location of the VC, and awareness of the VC services across nearby communities as well as good outcomes of interventions.

Supply Chain Management

Offering readymade spectacles and lenses provides immediate options for some patients. However, the supply chain between the hospital or supplier and the VC remains a critical factor in the success of the VC. The six different hospital systems have implemented a few strategies to address this issue. One option includes keeping a range of spectacles that vary in price and can be readily sourced. This fixed range of spectacles allows the hospital to more quickly provide the fitted spectacles.

By utilizing technology, hospitals can also improve supply chain management, streamlining the ordering of spectacles by maintaining a fixed set of spectacles with an identified ID that can be scanned and ordered directly from the main hospital. Another successful strategy involves incorporating the delivery of spectacles into the bid process with suppliers. Considering the location of the manufacturer or distributor can help ultimately reduce costs in supplying some more remote VCs.

As mentioned earlier, mapping can play a critical role in the success of the VC. When it comes to supply chain management, understanding the demographics of the target population allows the VC to better supply the VC with the needed levels of spectacles and medication. Consider the age and prevalence of eye diseases when stocking the VC. In addition, one key factor for successful supply chain management is knowledge of the customers' socio-economic status and ability to pay for various types of spectacles. Finally, track the trends at the VC of what is popular in that community. Being able to diversify the frame options can lead to more sells and also to patients purchasing spectacles at a slightly higher price.

Another component of supply chain is also the management of moving patients who are referred for additional care to and from the hospital. One hospital chain, SNC, has incorporated a regular bus route to and from its more remote VCs as one way to improve uptake of services, such as cataract surgery. Similarly, SCEH offers a pick up and drop from each VC on a fixed day of the week. The costs of the transport can be partially offset by the payment for surgery. Further, this commitment to provide transportation is in line with the hospital's overall mission to end avoidable blindness in its catchment areas.

Monitoring and Quality Control

Key performance indicators (KPI) are a critical way to track the VC success; however, defining these KPIs also varies by institute. Across the six eye care systems, all look at the number of patients coming to the VC, the number of spectacles advised and sold, the number of cataract surgeries advised and performed. Some also regularly review the number of specialty surgeries referred, number of referred patients seen at the hospital, population coverage, annual growth of outpatients, and paid surgeries. The way the hospitals track these various KPIs range from written logs and record books to electronic medical records that sync with the overall hospital EMR system. Many hospitals monitor the progress of the VCs through daily, weekly, and or monthly reports sent via text, WhatsApp or email.

Almost all hospitals have a system for regular monitoring visits and audits. The monitoring of quality considers both clinical and non-clinical factors. For example, a senior optometrist or ophthalmologist will review the medical records, observe technicians completing eye exams, and the maintenance of equipment. Non-clinical monitoring involves a review of the finances, assessment of the patient satisfaction and reputation of the VC within the community. For example, a finance manager may review the financial books that the VC keeps, crosschecking with the inventory and deposits made by the staff. Apart from this, there are different system for monitoring attendance, both online as well as physically. For example, AECS has online attendance for the staff where they have to show their face in the web camera and enter in the morning with time captured from the system. Similarly, apart from physical monitoring, LVPEI also used selfie system where the technician has to take a selfie when he reaches the center and post in group. SNEC and SECH has mostly physical monitoring system.

Overall Governance and Management of VC Networks

Across the hospital systems, a few methods are used to provide oversight and direction to the VCs. Nearly all hospitals set the policy and direction for VCs, including identifying the location of future VCs, through the head administration at a central location. Some hospitals manage the day-to-day VC network through a designated department at the main hospital, others oversee the daily activities through the VC's referral hospital. VCs submit reports monthly, weekly, and daily noting the number of patients seen, patients referred, spectacles dispensed, and revenue generated, among other key metrics. Some hospital systems are able to track this detail real time using data management systems. Most hospital systems have different staff responsible for the operations management and clinical quality of the VCs. These staff conduct regular (most commonly, monthly, or quarterly) monitoring visits to the clinics.

Conclusion

This paper highlights a range of approaches used by several eye care institutions providing PEC through VCs. Further investigation is required to determine how various systems can achieve optimal service coverage. In order for VCs to powerfully contribute toward achieving UEHC, the following need to be considered.

- Scalability: Refine the strategies and tools required to support rapid expansion of VCs. The Government of India had planned 20,000 VCs in the country; however, it's not moved at the expected pace[9]
- Coverage: Confirm coverage of entire catchment areas and identify gaps. Here, the use of technology can help in understanding the gaps in coverage so that strategies can be adopted for it
- Access: Ensure those who access services are delivered spectacles on time as well as ensure that those referred, avail services. Address known barriers for uptake of services and have continuous efforts in place the make services user friendly
- Referral: Establish two-way referral systems so those referred from a VC and seen at secondary or tertiary care are referred back for follow-up care at the nearest VC. If required, a teleconsultation can be offered to the VC level
- Staffing: Strengthen strategies for recruitment, training, and retention personnel need to be put in place so that the expansion of VCs can be planned appropriately
- Comprehensive care: With the technology revolution, put systems in place so as to ensure better access to secondary or tertiary level care at VCs
- Management and quality: Harness technology to improve systems for monitoring, evaluation, quality assurance, and use of data
- Finance: Research models for ensuring financial sustainability of VCs through increased service utilization, improved efficiencies, and other features

- Operational research: Investigate strategies to improve the spectacle supply chain, models for detection of chronic eye diseases like diabetic retinopathy, glaucoma, age-related macular degeneration to expand the convenience of care
- Community: Develop models for community engagement and integration with other health services as well as integrating low vision and rehabilitation services at the VC level
- Advocate: Promote UEHC-friendly policies with the government that allow accredited vison technician/optometrists to prescribe needed care, including spectacles and some medication, in remote areas.

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